

## GROUND WATER QUALITY PROTECTION

contamination is very difficult and because of the large number of pesticides in use, the wide range of chemicals, the toxicological and environmental fate characteristics displayed by these materials, and the lack of information on their environmental fate and health effects. Therefore, the committee recommends the following:

- **Registration of Critical Pesticides** States should consider initiating a routine procedure for flagging pesticides that have potential for leaching into a contaminating ground water. Such a procedure should be based on the pesticide's chemical characteristics and other factors such as evidence of previous detection in ground water. States should consider canceling the registration of pesticides for which essential data have not been provided.

- **Data Base on Agricultural Chemical Use** States should maintain a database on the spatial and temporal distribution of applied pesticides. Application could be required to report when, where, and how much of these pesticides are applied. Also useful are maps and summaries to indicate where such materials are applied.

- **Pesticide Tax to Fund Monitoring** Monitoring should be used to ensure that currently registered, potentially leachable pesticides do not reach groundwater. States should consider funding through fees paid for pesticides or their use. Such a program has two advantages: (1) a cost more reflective of the true cost of the pesticide is then paid by its users; and (2) there is an economic incentive for the manufacturers to produce new pesticides that do not have the potential to leach into ground water. An alternative to direct charges on manufacturers is a tax on the pesticide paid by the user. Such a tax would not only fund the necessary monitoring, but could encourage consumers to replace the leachable pesticide with a nonleachable substitute.

- **Cancellation of Pesticide Registration in Local Areas** States that are reluctant to cancel the statewide registration for a potentially leachable pesticide should consider canceling registration in local areas where soil conditions or other factors indicate that pesticide leaching may be a serious problem.

- **Economic Incentives, Legislation, and Financial Support for Source Reduction** States should encourage the use and development of source reduction techniques such as pesticide substitution, changes in irrigation practices, prevention of pesticide and fertilizer application near drinking water wells, and integrated pest management.

## Source Reduction

One of the most effective long-term strategies for ground water protection is to reduce and/or eliminate the sources of contamination. With today's technology and knowledge, it should be possible to substantially reduce